

T&E COMMITTEE #3
January 17, 2008

MEMORANDUM

January 15, 2008

TO: Transportation and Environment Committee
FROM: ^{Go} Glenn Orlin, Deputy Council Staff Director
SUBJECT: Briefing—I-270/US 15 Corridor Study, including the Corridor Cities Transitway

The Committee has asked for the Maryland Department of Transportation (MDOT) to provide a status report on the I-270/US 15 Corridor Study, including the Corridor Cities Transitway (CCT) Study. MDOT has prepared a presentation for the Committee (©1-19).

On hand to present the briefing and answer questions will be:

- Russell Walto, I-270/US 15 Project Manager, Office of Planning and Preliminary Engineering, State Highway Administration;
- Ernie Baisden, Manager, Project Development Division, Maryland Transit Administration; and
- Rick Kiegel, CCT Consultant Project Manager, McCormick Taylor, Inc.

CORRIDOR CITIES TRANSITWAY

Project Update Presentation



for the

Montgomery County Council
Transportation and Environment Committee

January 17, 2008

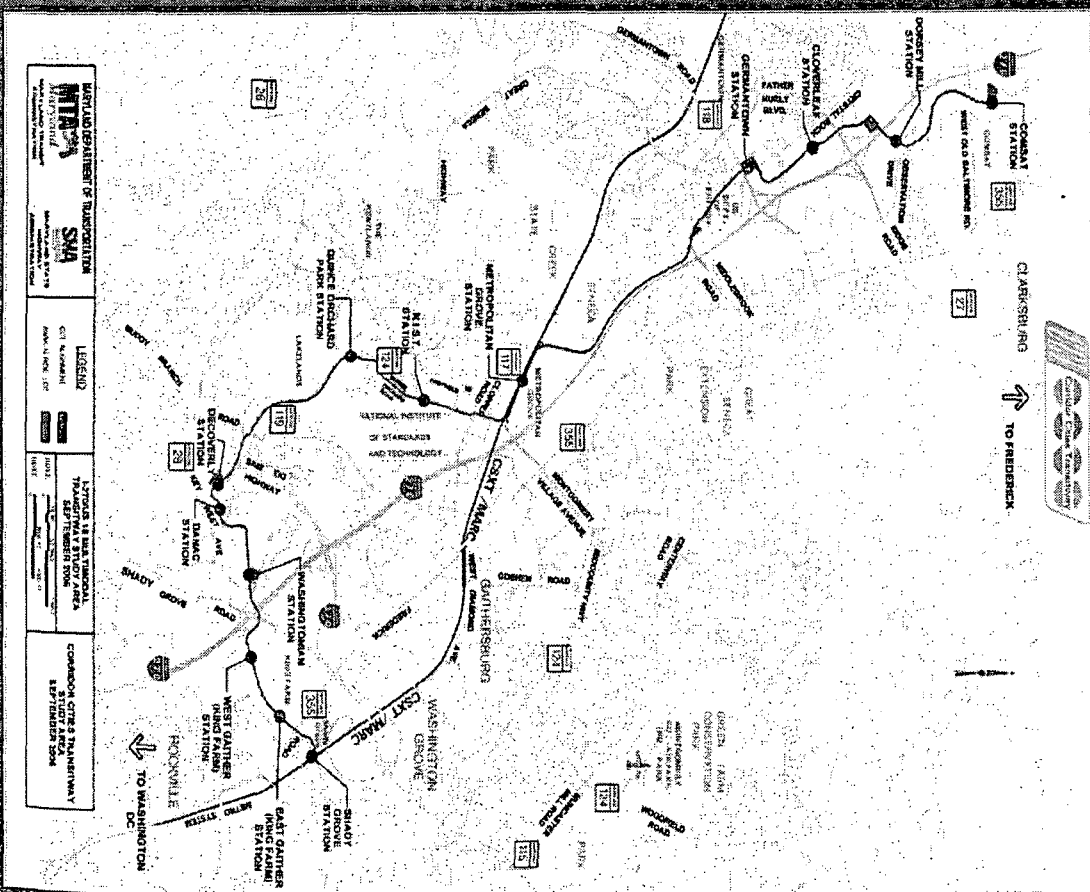
I-270/US 15 Multi-Modal Corridor Study

Project Information

- Joint Effort between MTA and SHA
- Highway Improvements over 30 Miles in Length
- Transit Project approximately 14 Miles in Length
- Project Team with SHA, MTA, Counties, and Cities



A map of the Washington, D.C. area, showing the Biggs Ford Road and the locations of the Biggs Ford Road and the Biggs Ford Road. The map includes labels for various locations such as Frederick, Urbana, Hyattstown, Clarkburg, Germantown, Gaithersburg, Rockville, and Shady Grove. It also shows major roads like I-40, I-270, and I-301, and the Potomac River. The map is oriented with North at the top.



Project Information – Highway

- Additional I-270 lane(s) from Frederick/Montgomery County line to I-370 (includes ETL lanes)
- Operate one or two ETL lanes each direction from south of Monocacy Battlefield to I-370
- Direct ETL Access Ramps at Newcut Road (proposed), MD 118, Metropolitan Grove MARC Station, MD 117 (potential), and I-370
- New I-270/Newcut Road Interchange
- I-270/MD 121 Coordination
- I-270/Watkins Mill Road Interchange Coordination



Project Information – Transit

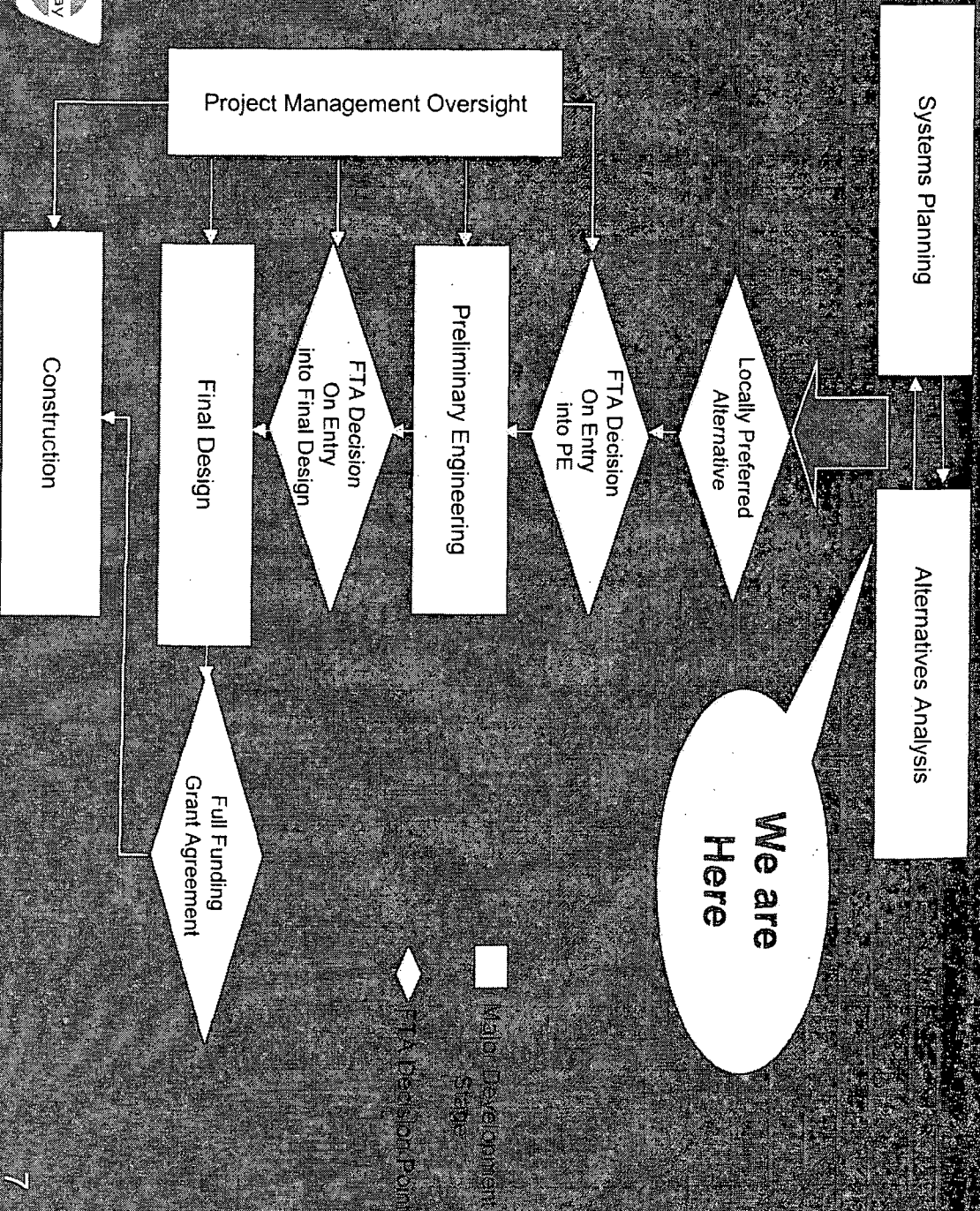
- Approximately 14 Miles
- 17 Stations (includes 4 beyond 2025)
- Transit Transfers at Metropolitan Grove (MARC), Shady Grove (WMATA Red Line), and Local Buses
- Highway Access from Local Streets, I-270 Interchanges, and Direct Access Ramps
- Alternatives include Light Rail Transit (LRT), Bus Rapid Transit (BRT), or Premium Buses on I-270 Managed Lanes (HOV or ETL)



Project Activities/Issues

- Alternatives Analysis/Environmental Assessment being prepared to include:
 - ETLs
 - CCT Crown Farm alignment change
 - Operations and Maintenance (O&M) facilities
- Preliminary Ridership Estimates have been completed
- New Cost Estimates are being completed now
- Department of Energy National Register Eligibility (realignment investigations)
- Other Alignment Options to be considered after the AA/EA: Crown Farm, Belward Farm, and Kentlands

New Starts Project Development Process



CCT Ridership and Cost Estimates

Ridership

- Based on Future Year 2030 Population & Employment Forecasts
- "Travel times" are between COMSAT and Shady Grove
- "Boardings" are the number of riders who would use the CCT on a typical day

Capital Costs

- Estimated in 2006 Dollars, subject to inflation to the time when the project is implemented
- Includes costs to design, manage, and construct facilities, acquire right-of-way, and purchase equipment including transit vehicles
- Costs are currently being updated for the AA/EA

Operation and Maintenance Costs

- Estimated in 2007 Dollars, subject to inflation to the time when the project starts operating
- Includes costs to operate transit services and maintain vehicles, facilities, and equipment
- Accounts for adjustments to local bus service
- Costs are currently being updated for the AA/EA



CCT Alternatives Preliminary Travel Demand Forecasts & Cost Estimates

Transit Alternative	Travel Time (minutes)	Ridership (Daily Boardings)	Capital Cost (millions-2006\$)	Annual Operations and Maintenance Costs (millions-2007\$)
Hwy 1 and Trans. TSM	60	5,000 - 7,000	\$48.0	\$46.2
Hwy 1 and Light Rail	36	16,000 - 20,000	\$865.0	\$52.5
Hwy 1 and Bus Rapid	38	15,000 - 19,000	\$539.4	\$41.5
Hwy 2 and Light Rail	36	16,000 - 20,000	\$865.0	\$52.5
Hwy 2 and Bus Rapid	38	15,000 - 19,000	\$539.4	\$41.5

Both Hwy 1 and Hwy 2 have four general purpose and two express toll lanes on I-270 in each direction in Montgomery County north of I-370 to the future interchange with New Cut Road (between MD 121 and West Old Baltimore Road). Both have two general purpose lanes on I-270 in each direction from the future New Cut Road interchange to I-70. Hwy 1 has two express toll lanes in this segment while Hwy 2 has one express toll lane.



How Projects Get Funded

Funding Sources

- State – via the Transportation Trust Fund
- Counties and Local Jurisdictions
- Federal – principally Federal Transit Administration (FTA) Section 5309 New Starts
 - Eligible projects:
 - Projects require \$75 million or more federal funds
 - New fixed guideway systems (rail, bus rapid transit)
 - Extensions to existing systems
 - Match requirement: min. 20% (typically matched at 50%+)
- Project funding decisions made jointly by FTA and Congress – national competition



New Starts Evaluation Criteria

- Project Ratings given to two composite measures: project justification and project finance
 - Rating - "high", "medium high", "medium", "medium low", "low"
- Project Justification
 - mobility – travel time, transit dependent usage, etc.
 - cost-effectiveness – ratio of cost to user benefit
 - land use – transit supportive land use
- Project Finance
 - Amount and reliability of non-Federal share of New Starts

Cost-Effectiveness

- Cost-effectiveness ~ (approx.) 50% of project justification rating
- Must get a “medium” rating in cost-effectiveness for a project to be recommended.
- Cost-effectiveness benchmarks:
 - “High”: Less than or equal to \$11.99
 - “Medium-High”: \$12.00-\$15.49
 - “Medium”: \$15.50-\$23.99



Cost-Effectiveness

Annualized Project Cost

C/E =

Transportation System User Benefits

- Annualized Project Cost = annual capital and operating costs (incremental costs)
- Transportation System User Benefits = hours of perceived travel time benefits accrued to all travelers affected by the project

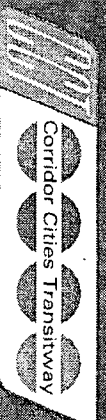


Cost-Effectiveness

Cost Effectiveness Factors:

- Project Capital and Operating Costs
- Travel time savings
- Other user benefits
 - Parking costs reductions
 - Out-of-pocket costs reductions
 - Comfort, convenience and other perceived benefits

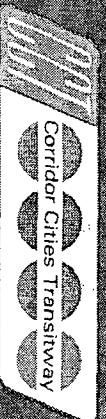
↕ As costs go up or benefits down, C/E goes up
↕ As costs go down or benefits up, C/E goes down



Strategies for CCT

Costs and Cost-Effectiveness

- Keep New Starts Project Capital Costs Down
 - Minimize enhancement costs that don't increase transportation system user benefits
 - Minimize ROW and street restoration costs
- Support Means to Keep Project Travel Speeds Up
 - Enable roadway and intersection transit preference
- Maximize Separate Funding of Related Projects
 - Hiker/Biker Trail
 - Developer Funded Enhancements



Strategies for CCT

Federal

- Support Timely SAFETEA-LU Reauthorization
- Support Increased Transit Funding in SAFETEA-LU Reauthorization
- Develop Earmarking Strategy for Reauthorization and Appropriation Legislation



Strategies for CCT

State

- Support Strategies for Increasing Transportation Funding
- Support Selection of Cost-Effective Project
- Support Smart Growth Related Legislation



Strategies for Purple Line

County/Local Jurisdictions

- Maximize Level of Construction Funding Support
- Be Aggressive in Requiring Developer Contributions and Enhancements
- Maximize Transit Supportive Development Policies
- Facilitate Timely Local Approvals and Minimize Project Enhancement Requirements that Increase Costs



Maryland New Starts Projects

	Location	Length	Modes	Cost	Status
Corridor Cities	Montgomery County	14 miles	BRT LRT	\$539 – 865 million	Planning (AA/DEIS)
Purple Line	Montgomery and Prince George's	16 miles	BRT LRT	\$450 – 1,790 million	Planning (AA/DEIS)
Red Line	Baltimore City and County	12 miles	BRT LRT	\$500 - 3,000 million	Planning (AA/DEIS)
Green Line	Baltimore City	4.5 miles	BRT LRT HRT	\$300 – 1,600 million	Planning (Feasibility)

